

DEPARTMENT OF DIAGNOSTIC RADIOLOGY AND NUCLEAR MEDICINE

Patient Information Sheet

Percutaneous Transplant Kidney Biopsy under Ultrasound Guidance

General Indications for the Procedure: When there is a suspicion of rejection or other disease of the kidney, it may be necessary to take a piece of the kidney for special testing, in order to diagnose the abnormality and to determine the best way of treating it. This is called a biopsy.

Description of the Procedure: The kidney will be scanned first with ultrasound to look at the blood vessels and to determine if there is a blockage or fluid around the kidney. The biopsy is performed by puncturing the skin with a needle and passing the needle into the kidney. A piece of tissue is then taken out through the needle. Using ultrasound helps the radiology doctor find the best place to insert the needle to sample the tissue. The skin at that location is carefully cleaned with a sterilizing solution. The doctor then injects numbing medicine (local anesthetic) into the skin and into the tissue below the skin, in order to completely numb the chosen site. Once the area is completely numb, a larger needle is put through the skin and into the kidney, using ultrasound to make certain the correct area is biopsied. Once the tissue samples are obtained, the needle is removed, and pressure is applied to the site. The procedure lasts about 15 minutes. A pathologist is present, who determines if the biopsy is adequate. After the procedure, the patient goes to a recovery area to be observed for 1 hour with a sandbag over the area to prevent bleeding. A repeat ultrasound is done after one hour to be sure there are no complications.

Risks of the Procedure: The most common complication is bleeding. The risk of having a large amount of bleeding after a biopsy is very low. Most complications appear within the first hour after biopsy, although occasionally complications are delayed. If an infection develops, the patient may need antibiotics.

Alternatives to the Procedure: The only alternative way of getting tissue for biopsy is surgery. Depending upon the patient's underlying medical condition, surgery may be more risky than percutaneous biopsy.

Probable Consequences of Refusing the Procedure: If the patient decides not to have the procedure performed, the patient's doctor may have difficulty determining the nature of the patient's problem, making it difficult to determine the best way to treat the kidney disease.

Persons Performing the Procedure: The key portions of the procedure will be performed by an attending physician who is a member of the medical staff of Rush University Medical Center, or a resident or fellow in Radiology who will be observed and supervised by a member of the medical staff. Residents are licensed physicians in an approved residency program. Fellows are licensed physicians who have completed a residency in radiology and are in an approved post-residency training program. The parts of the procedures residents or fellows will perform will be based on their level of training and competence.